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HP Docket No. 10980726-4

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appl. No.	:10/821,490	)
Conf. No.	:1425	)
Appellant	:Winter et al.	)
Filed	:04/09/2004	)
Title	:System and Method for Printing and Scanning a User- Completed Digital Still Camera Image Proof Sheet and Order Form	)
TC / Art Unit	:2625	)
Examiner	:Huntsinger, Peter K.	)
Docket No.	:10980726-4	)
Customer No.	:022879	)

Commissioner for Patents

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**APPELLANTS' REPLY BRIEF (SUBSTITUTE)**

Sir:

This substitute Reply Brief is presented in opposition to the substitute Examiner's Answer mailed 04/09/2009. Appellants are appealing from the Final Rejection of claims 21-37, 39-41, 43-65, 68-70, 72, 74-84, and 130-131.

**I. STATUS OF CLAIMS**

The Examiner is correct that claim 71 has been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Appellants further note that the Status of Claims in the Appeal Brief incorrectly stated that claims 85-93 and 95 were appealed. Claims 85-93 and 95 were also included in the

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Claims Appendix of the Appeal Brief. However, no Argument as to claims 85-93 and 95 was presented in the Appeal Brief, and Appellants do not appeal the rejection of claims 85-93 and 95. Claims 85-93 and 95 are omitted from the Claims Appendix included herewith.

## II. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The Examiner is correct that claims 85-93 and 95 are not addressed in the Appeal Brief, to the extent that no Argument as to claims 85-93 and 95 was presented in the Appeal Brief, and that Appellants do not appeal the rejection of claims 85-93 and 95.

## III. ARGUMENT

The Examiner's Answer includes a "Response to Arguments" section at p.30-37. In that section, the Examiner presents responses a.-i. to various ones of the arguments presented in the Appeal Brief. The present section of the Reply Brief follows the outline structure used in the Appeal Brief, and cross-references the Examiner's responses a.-i. to the headings, sub-headings, and sub-sub-headings of the outline structure.

Note that, within the outline structure, Appellants present only counterarguments to the specific arguments in the Examiner's Answer. Therefore, please refer to the Appellants' Appeal Brief for additional arguments and for further detail omitted herein.

Before presenting specific counterarguments to the arguments in the Examiner's Answer, Appellants believe it is important to step back from the individual elements of the claims, and look at how drastically different from the cited references the invention is as a whole. The primary reference, Hicks, is directed to the operations of a full-scale photographic laboratory. This photographic lab utilizes a large number of different pieces of equipment - silver halide film developing equipment, computers, scanners, mechanical printing equipment, as well as chemical and optical photographic print production equipment. The photographic lab is the physical plant of a business that produces photographic print

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packages for institutional groups such as school children, church congregations, clubs and other organizations (Hicks, col. 1, lines 10-13). There are probably a large number of different photographers, who may or may not be employees of the photographic lab, who take the photographs of these various institutional groups, and funnel them into the photo lab for processing. The lab undoubtedly requires a significant film library system to store the large quantity of film negatives after processing but before print orders are received, and a customer tracking system to manage and track the proofs and order forms mailed out to the various individual school children, church members, and club members. Lots of manual activities are involved: moving forms from printer to printer, storing film images for later retrieval, mailing out order forms to potential customers, receiving them back in the mail, scanning them or entering their data manually, retrieving the film images, and using the retrieved films to make prints. Secondary references are cited by the Examiner for specific claim limitations, but none of them teach or suggest changing the photographic lab in a fundamental way. The Yamaguchi reference, for example, also discloses a large, complex system used in a photographic lab, and which produces traditional wet-chemistry photographic prints on photographic paper (Yamaguchi, col. 11, ln. 23-60).

When Appellants have invented is so very different. With Appellants' invention, an individual photographer with a digital still camera can, for example, insert a memory card from the camera into a slot in his personal printer in his home, after which the printer will generate a combination proof sheet and order form showing the various images on the memory card. The user marks on the printed form which images he would like printed, and how he would like them printed. He then reinserts the marked proof sheet and order form back into his printer. That's all he has to do. The markings he made on the proof sheet and order form are automatically detected by the printer, and the prints he desires are automatically printed out for him on his printer in the manner requested.

Advantageously, the photographer can obtain the prints he desires almost immediately, avoiding the multiple day delays associated with communicating with a laboratory through the mail. The photographer does not need to devote time and resources to assembling a lab's worth of various photographic devices to select and print photos in this

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manner. He does not need to perform the many steps done in the photo lab to obtain his final prints. The operation of identifying and selecting photos to be printed, and printing them in the form he desires, is incredibly simple, fast, and easy compared to the systems and methods taught or suggested by the references cited by the Examiner in the rejection on Appeal.

**A. Claims 43-44, 47-52, 54-57, 61-62, 64-65, 68, 70, and 72 were improperly rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,359,387 to Hicks ("Hicks") in view of U.S. Patent No. 5,812,178 to Yamaguchi ("Yamaguchi").**

1. The cited references, alone or in combination, do not teach or suggest all the limitations of Appellants' independent claim 43.
  - a) **The feature of a digital print mechanism that generates on a print medium a combination proof sheet and order form that includes a graphical representation of at least one digitally stored image and a plurality of user designation areas is absent from the combined references.**

The following counterargument responds to argument "a." of the Examiner's Answer.

The Examiner argues that the Hicks reference "discloses that the graphical representation are printed simultaneously with the printing of the order form ... the order form can be printed in the same manner as the graphical representation by using a previously prepared photographic negative image" (Examiner's Answer, p.31). The print medium is a contact sheet.

However, Appellants disagree that the photographically-printed contact sheet of the Hicks reference is a combination proof sheet and order form, as understood with reference to the claim as a whole. Considering the claim as a whole, it recites that program logic interprets the user designation areas completed by the user on the sheet and that are detected by a scanner mechanism, and then the digital print mechanism automatically generates at least one final print sheet of at least one of the digitally stored images in accordance with the user designation areas that were completed by the user. In other words, the combination proof

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sheet and order form produced by the printer mechanism must be capable of supporting this operation by the program logic.

Unfortunately, the photographically-printed contact sheet of this Hicks reference cannot do so. It cannot do so because there is no scanable feature on the contact sheet that can identify which digitally stored image is associated with a particular user-completed user designation area. This identification data is not produced by the contact sheet "printing" mechanism. Rather, it is added to the contact sheet by a different, additional printer in a subsequent step:

"the group code, frame number and composition data are now imprinted on the proof paper using a mechanical or character printer mechanism programmed by group code, frame number, and composition data stored in the computer data base. Group code and frame number data 28 are shown in FIG. 2 above each proof print and the composition data 30 is shown in FIG. 2 on the lower portion of each proof print. The combined print and order form 14 is now delivered to the subject" (Hicks, col. 3, ln. 37-47; emphasis added)

After the user has marked the combination proof sheet and order form as desired and returned it to the photo processor:

"Upon receipt of the envelope containing the print and order form and payment (and as seen in block 9 of FIG. 1) an operator at the photographic lab enters order data into the computer data base 12 corresponding to the packages selected of each proof print by the subject. Alternatively, the marks made on the order form 26 by the subject may be machine readable in which case the order data from the order forms may be automatically entered into the computer data base by passing the combined print and order form through a suitable read device. Thereafter, as seen in block 10, the identifying data, the order data, and the composition data are supplied from the computer data base and are utilized to produce the final photographic prints." (Hicks, col. 4, ln. 16-30; emphasis added)

As disclosed by the above portions of the Hicks reference, the identifying data of at least the group code and the frame number are needed to locate the desired negative, and then to produce the prints requested by the user on the marked combination proof sheet and order form. Thus two different print mechanisms, at least one of which is not digital, are needed in the Hicks reference in order to generate a combination proof sheet and order form as recited in the claims.

With regard to the Yamaguchi reference, the Examiner states that it "discloses a digital print mechanism" (Examiner's Answer, p.31). Regardless of whether the Examiner is

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correct, however, the Yamaguchi reference does not teach or suggest a digital print mechanism, or any print mechanism, that generates a combination proof sheet and order form that incorporates at least one of the plurality of images and the plurality of user designation areas, as recited in the claim. The Yamaguchi reference does not teach or suggest the printing of any combination proof sheet and order form at all. The printer of the Yamaguchi reference only produces final photographic prints that each correspond to single, individual negatives. Furthermore, no combination proof and order sheet is used in the Yamaguchi reference to instruct the print mechanism for which images the user desires to produce final print sheets. Instead, whatever printing instructions are needed are supplied via a keyboard by an operator who views the image on a monitor (Yamaguchi, col. 11, ln. 1-8).

**b) The feature that the same print mechanism generates both the combination proof sheet and order form, and the final print sheets, is absent from the combined references.**

The following counterargument responds to argument "b." of the Examiner's Answer.

The Examiner argues that the "mechanical or character" printer mechanism (Hicks, col. 3, ln. 37-45) generates a combination proof and order sheet. The Examiner also argues that the Hicks reference discloses printing the final print sheets as photographic prints (Hicks, col. 4, ln. 27-35) (Examiner's Answer, p.31). However, Appellants note that the mechanical or character printer mechanism cannot produce the photographic prints.

The Examiner further argues that the Yamaguchi reference discloses a digital print mechanism that generates a final print sheet and that also scans, and that it would have been obvious to a person of ordinary skill in the art to combine the references so as to result in "the printer of Hicks '387 producing the final print sheets in addition to printing the combination proof sheet and order form" (Examiner's Answer, p.31-32).

Appellants disagree. As discussed above with reference to the Examiner's argument "a.", the Yamaguchi reference does not teach or suggest the printing of any combination proof sheet and order form at all. Because the Hicks reference teaches that two different printers

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print the combination proof sheet and order form and the final prints, and because the Yamaguchi reference does not print any combination proof sheet and order form at all, the only source for such teachings is Appellants' claims and specification. This aspect of the rejection relies on impermissible hindsight by the Examiner using Appellants' teachings as a blueprint.

In addition, even if - arguendo, and which Appellants do not concede - the combined references did teach or suggest a single printer that could print both the combination proof sheet and order form and the final prints, the Hicks reference does not teach or suggest that it would use the same printer to print both items in its photographic laboratory. The photo lab that the Hicks reference discloses is a commercial enterprise with a well-defined process flow for receiving film, proofing, soliciting customer orders, receiving customer orders, and producing final prints. The Hicks reference discloses that the lab uses different equipment to print the combination proof sheet and order form and the final prints. There is no suggestion of any benefits that would accrue from having a single printer that performs both operations. On the contrary, sharing a single printer would involve additional scheduling overhead to determine which operations would be performed when, or to separate mixed output of contact sheets and final prints. Furthermore, if the volume of the order forms and final prints produced by the lab require more than one printer, it would be more cost-effective to produce the final prints using the simpler, conventional photographic print equipment of the Hicks reference rather than the more complex (film to digital to wet-chemistry photographic print), and thus more expensive, printer of the Yamaguchi reference.

- c) **The feature that the digital print mechanism automatically generates the final print sheets in response to the detection and interpretation of, and in accordance with, the user designation areas completed by the user is absent from the combined references.**

The following counterargument responds to argument "c." of the Examiner's Answer. The Examiner argues that the Hicks reference "discloses that the order forms may be

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automatically entered by entering through a read device ... and thereafter the data is supplied from the computer data based [sic] and utilized to product the final photographic prints. The applicant's specification does not define the term 'automatically'. The definition within the art is 'largely or wholly involuntary'. The generation of the final print sheets is largely or wholly involuntary and therefore can be considered automatic" (Examiner's Answer, p.32)

Appellants disagree.

First, the same portions of the Hicks reference cited by the Examiner above have been extensively argued by Appellants in the Appeal Brief (p.15-16). In the Hicks reference, no final print are produced in response to the detection and interpretation of data on the combination proof sheet and order form. The only operation that is automatically performed in response to this is that the order data is entered into the computer data base. Only at some time "thereafter" is the order data supplied from the data base and used to produce the final prints. Such prints cannot be produced automatically because the images are not digitally stored images but rather are film images, which must be physically retrieved from a physical storage location based on the group code and frame number stored in the data base and fed into the photographic printer.

Even assuming, arguendo, that the Examiner is correct in his definition of the term "automatically", it strains credulity to consider the above process, particularly the physical retrieval of the films, to be "largely or wholly involuntary" in the photographic lab system and process disclosed by the Hicks reference.

Furthermore, the meaning of term "automatically" is clearly described in Appellants' specification:

"The completed proof sheet and order form 22 is then manually re-inserted into the input/output media tray 38 (FIG. 2) of the ink jet printer 14. ... [T]he printer 14 can detect the re-insertion of the order form 22 and automatically start printing the final print sheet(s). A scanner 46 (FIG. 2) including circuitry and software is mounted in the ink jet printer 14. The scanner 46 ... can incorporate the exiting paper edge sensors that are already in some printer [sic]. Some ink jet [sic] printers have sensors for detecting the type of media and the activation energy for the ink jet pen. These sensors can be used to detect completed user designation areas. The scanner 46 is used to detect the user designation areas completed by the user on the proof sheet and order form 22. This information is conveyed to the CPU 26 for storage in the RAM 30. Programming stored in the ROM 28 is used by the CPU 26 to



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generate at least one final print sheet 48. ... [T]he final print sheet or sheets have the images and enhancements (e.g. size, cropping, brightness, etc.) designated by the user on the combination proof sheet and order form 22." (Specification, p.8, ln. 5-20; emphasis added)

Thus once the completed proof sheet and order form is inserted into the printer, the desired final print sheet(s) are printed automatically. Nothing like this is either disclosed by the Hicks reference, or taught or suggested by the cited references in combination.

3. The Hicks and Yamaguchi references are not properly combinable in that there is no articulated reason with some rational underpinning to modify or combine the reference teachings because the reason articulated by the Examiner is merely a listing of the functions that are to be combined, because it is uncertain whether image quality is improved by the combination, and because of level of ordinary skill in the art has not been established.

The following counterargument responds to argument "d." of the Examiner's Answer.

With regard to the motivation to combine the Hicks and Yamaguchi references, the Examiner argues that it would have been "to provide a user with scanning, digital photo printing, and document printing capability from one device and to improve image quality" (Examiner's Answer, p.33)

Appellants disagree. As has been argued above with reference to the Examiner's argument "b.", the Hicks reference does not teach or suggest the feasibility or the desirability in a commercial photographic lab of using one device to perform all these functions.

In addition, as has been argued in the Appeal Brief (p.19-20), any improvement in gray balance that may have been provided by the teachings of the Yamaguchi reference in 1998 would have come at the cost of degraded image quality due to the multigenerational film image - to digital image - to light projected onto photographic paper printing process taught by the Yamaguchi reference. Furthermore, photographic laboratories like that of the Hicks reference already employed alternate methods during the printing process to achieve proper color balance, such as color filters. So there is no evidence that prints produced by the printer of the Yamaguchi reference would have any better gray balance than prints produced

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by the lab of the Hicks reference. Any such improvement is merely speculative.

Furthermore, the Examiner is asserting what a person of ordinary skill in the art would find obvious, without providing any evidence that resolves or specifically defines the level of ordinary skill in the pertinent art. Resolving the level of ordinary skill in the art is a required element of an obviousness rejection, because “the [Graham v. Deere] factors continue to define the inquiry that controls” KSR Int’l Co. v. Teleflex Inc., 82 USPQ2d 1385, 1387 (S.Ct. 2007). Without such evidence, the level of ordinary skill in the pertinent art can be defined only by the cited references themselves. And as has been discussed previously, the references themselves do not teach or suggest the modifications proposed by the Examiner.

**D. Claims 74-76, 79-82, and 84 were improperly rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,359,387 to Hicks (“Hicks”) in view of U.S. Patent No. 5,812,178 to Yamaguchi (“Yamaguchi”), and further in view of U.S. Patent No. 4,441,807 to Bartz (“Bartz”).**

1. The cited references, alone or in combination, do not teach or suggest all the limitations of Appellants’ independent claim 74.
- b) The feature of automatically enhancing the digitally stored image with the digital printer responsive to detecting and interpreting the completed user designation areas is absent from the combined references.**

The following counterargument responds to argument “e.” of the Examiner’s Answer.

The Examiner argues that the Bartz reference “reads the exposure parameter (i.e. detecting and interpreting the completed user designation areas), records the data into storage and generates control commands to automatically control the transparency exposure to the printer (i.e. enhancing the digitally stored image)” (Examiner’s Answer, p.34).

To whatever extent, if any, that the Examiner’s characterization of the Bartz reference may, arguendo, be correct, Appellants contend that the Bartz reference does not teach enhancing the digitally stored image with the digital printer responsive to detecting and interpreting the completed user designation areas, as recited in claim 74. As argued in the

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Appeal Brief (p.28-30), the generation of commands to the printer of the Bartz reference to automatically control the exposure is not performed responsive to detecting and interpreting the completed user designation areas (i.e. mark box column 18 and 19 of table 17). Instead, the marks made by a user in mark box columns 18 and 19 are read by an optical character reader, and data corresponding to the user marks is stored in data blocks on the magnetic strip 20 of the masking card carrying the corresponding negative. This operation must be performed prior to enhancing the image. What occurs responsive to the detecting and interpreting of the marks in the mark boxes by the optical character reader is only that the data is stored in the data blocks of the magnetic strip 20.

In the rejection, the Examiner incorrectly equates exposing the negative on the masking card to enhancing a digitally stored image, a characterization with which Appellants disagree. However, even if, arguendo, the Examiner's position in this regard is correct, the film or negative on the masking card is not exposed responsive to the detecting and interpreting of the marks in the mark boxes. Instead, the masking card on which the exposure parameters are stored in the magnetic strip 20 after the optical scanning of the marks has been completed, may (or may not) be eventually input to the photo printer in a subsequent operation for printing an image of the film or negative carried by the masking card. The Bartz reference clearly teaches that this is done in a subsequent operation, because it discloses that the masking cards can be supplied to the photo printer in any desired sequence. Thus any automatic enhancing of an image is not performed responsive to the detecting and interpreting of completed user designation areas (i.e. the marks in the mark boxes).

3. The Hicks and Bartz references are not properly combinable in that there is no articulated reason with some rational underpinning to modify or combine the reference teachings because the reason articulated by the Examiner is merely a listing of the features disclosed only in Appellants' invention, and because of level of ordinary skill in the art has not been established.

The following counterargument responds to argument "f." of the Examiner's Answer.

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The Examiner argues the previously stated motivation of allowing the user to crop and choose the color of ordered prints (Examiner's Answer, p.35). Appellants disagree, for similar reasons as argued in the Appeal Brief (p.31).

The Examiner also argues that the Bartz reference "teaches that automatic control of printer parameters alleviates the time consuming operation of manually entering parameters" (Examiner's Answer, p.35). However, this would not provide motivation for combining with the Hicks reference, since the Hicks reference already discloses that the marks on the order form may be automatically entered into the computer data base (Hicks, col. 4, ln. 21-26). The Bartz reference adds nothing to the Hicks reference in this regard, and hence the reason does not have a rational underpinning.

Furthermore, the Examiner is asserting what a person of ordinary skill in the art would find obvious, without providing any evidence that resolves or specifically defines the level of ordinary skill in the pertinent art. Resolving the level of ordinary skill in the art is a required element of an obviousness rejection, because "the [Graham v. Deere] factors continue to define the inquiry that controls" KSR Int'l Co. v. Teleflex Inc., 82 USPO2d 1385, 1387 (S.Ct. 2007). Without such evidence, the level of ordinary skill in the pertinent art can be defined only by the cited references themselves. And as has been discussed previously, the references themselves do not teach or suggest the modifications proposed by the Examiner.

4. There is no reasonable expectation of success in modifying the reference or combining reference teachings in that the proposed combination of the Hicks and Bartz references would produce a seemingly inoperative device that could not properly produce final prints from order information or from image information on the form.

The following counterargument responds to argument "g." of the Examiner's Answer.

In the Appeal Brief (p.32-33), the Appellants argued why the combination of the Hicks and Bartz references would produce a seemingly inoperative device that could not properly produce final prints from order information or from image information on the form. The Examiner has not directly addressed the substance of these arguments, other than to

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assert that “the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary invention”, but “what the combined teachings would have suggested to those of ordinary skill in the art” (Examiner’s Answer, p.36). However, as has already been explained, what the combined teachings would have suggested to those of ordinary skill in the art cannot be ascertained without first providing evidence that resolves or specifically defines the level of ordinary skill in the pertinent art. Without such evidence, the level of ordinary skill in the pertinent art can be defined only by the cited references themselves. And also as has been discussed previously, the references themselves do not teach or suggest the modifications proposed by the Examiner.

Furthermore, Appellants contend that because combining the reference teachings as suggested by the Examiner would result in an inoperative device, one of ordinary skill in the art would not have made such a combination in any case. In other words, the Hicks reference would have taught away from combination with the Bartz reference.

**E. Claim 40 was improperly rejected under 35 U.S.C. §103(a), as being unpatentable over U.S. Patent No. 5,359,387 to Hicks (“Hicks”) in view of U.S. Patent No. 5,812,178 to Yamaguchi (“Yamaguchi”), and further in view of U.S. Patent No. 4,441,807 to Bartz (“Bartz”).**

2. The cited references, alone or in combination, do not teach or suggest all the limitations of Appellants’ dependent claim 40.
  - a) **The feature that the user designation cropping areas are markable by the user to graphically indicate two-dimensional cropping positions for the image is absent from the combined references.**

The following counterargument responds to argument “h.” of the Examiner’s Answer.

In the Appeal Brief (p. 35-36), Appellants argued that the combined references, and specifically the mark box columns 18,19 of the Bartz reference, do not graphically indicate the two-dimensional cropping positions for the image. In the Examiner’s Answer (p.36-37), the Examiner fails to point out how any of the references graphically indicate the two-

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dimensional cropping positions for the image. The examples cited by the Examiner, such as the a percentage or a print size, do not graphically indicate two-dimensional cropping positions. Thus, Appellants reemphasize the arguments presented in the Appeal Brief in this regard.

- Q. Claim 77 was improperly rejected under 35 U.S.C. §103(a), as being unpatentable over U.S. Patent No. 5,359,387 to Hicks ("Hicks") in view of U.S. Patent No. 5,812,178 to Yamaguchi ("Yamaguchi"), in view of U.S. Patent No. 4,441,807 to Bartz ("Bartz"), and further in view of U.S. Patent No. 6,181,409 to Calhoun ("Calhoun").**
2. The cited references, alone or in combination, do not teach or suggest all the limitations of Appellants' dependent claim 77.
- a) **The feature that the form has a plurality of graphical representations of the digitally stored image, each graphical representation prospectively indicative of the effect of the enhancement is absent from the combined references.**

The following counterargument responds to argument "i." of the Examiner's Answer.

The Examiner argues that "bar code 80 contains instructions for separating the images from one another and therefore each graphical representation is prospectively indicative of the effect of the enhancement".

First, the Examiner is apparently arguing that the bar code is the graphical representation. However, the bar code is not a graphical representation of the digitally stored image, as required by the claim; these images would be images 62 or images 70. Rather, bar code 80 is a machine-readable bar code that may contain printer instructions as to information that is to be printed on the back side of the photos, or locations for cutting the photos (Calhoun, col. 6, ln. 9-29). Furthermore, there is no indication that the bar code is a digitally-stored image at all; rather, the bar code image is generated only when it is printed, as a way to represent the underlying instructions or locations, with the instructions or locations encoded into a bar code during the printing process.

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In addition, the “enhancement” is recited, in base claim 74, as “a particular image enhancement applicable to an image”. In other words, each graphical representation prospectively indicates what the effect of the enhancement to the digitally stored image will be, if the enhancement is subsequently made to the image. If bar code 80 of the Calhoun reference is considered to be the graphical representation, it does not indicate how bar code 80 might appear after its image is enhanced. Some such enhancements might even cause bar code 80 to fail to be recognized and decoded.

Finally, it stretches credulity to argue, as the Examiner apparently does, that instructions for where to cut the individual printed images printed on a web could be an “image enhancement” of any type.

#### IV. CONCLUSION

Appellants contend that claims 21-37, 39-41, 43-65, 68-70, 72, 74-84, and 130-131 were improperly rejected because the applied references, alone or in combination, do not teach or suggest all of Appellants’ claim limitations, there is no articulated reason with some rational underpinning to modify or combine reference teachings, and/or there is no reasonable expectation of success in combining the references. Such a suggestion or motivation could be found only in hindsight and in light of Appellants’ teachings.

Each of these reasons alone distinguishes Appellants’ claims from the cited references and makes Appellants’ claims non-obvious in light of the cited references.

Overruling of the Examiner’s rejections of claims 21-37, 39-41, 43-65, 68-70, 72, 74-84, and 130-131 is respectfully requested.

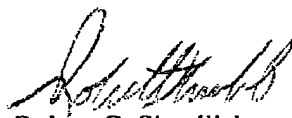
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Respectfully submitted,



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## V. CLAIMS APPENDIX

21. A printer for enabling a user to select and print a plurality of digitally stored images accessible by the printer, comprising:

a digital print mechanism configurable by program logic to generate a combination proof sheet and order form having graphical representations of selected ones of the plurality of digitally stored images and a plurality of user designation areas;

a scanner mechanism configurable by program logic to detect and interpret at least one user-completed one of the user designation areas after the form has been inserted into the scanner mechanism; and

program logic configured to cause the digital print mechanism to generate at least one final print sheet having a graphical representation of at least one of the digitally stored images in accordance with the at least one detected and interpreted user-completed one of the user designation areas.

22. The printer of claim 21, wherein the form is inserted into the scanner mechanism by reinserting the form into an input/output tray of the printer.

23. The printer of claim 21, comprising:

a data transfer interface configurable to receive the digitally stored images, the interface selected from the group consisting of a memory card reader and at least one I/O port.

24. The printer of claim 21, wherein the graphical representations are made up of microscopic pixels.

25. The printer of claim 21, wherein the digital print mechanism is selected from the group consisting of a laser print mechanism, an ink jet print mechanism, a dot matrix print mechanism, a dye sublimation print mechanism, and a thermal print mechanism.

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26. The printer of claim 21, wherein the graphical representations of the selected ones of the plurality of images include thumbnail images.

27. The printer of claim 26, wherein one of the user designation areas is located on the combination proof sheet and order form adjacent to and is associated with a corresponding one of the thumbnail images.

28. The printer of claim 21, wherein the user designation areas to be user-completed include locations markable by the user with a marking implement.

29. The printer of claim 28, wherein at least some of the markable locations comprise bubble-shaped regions.

30. The printer of claim 28, wherein at least some of the markable locations comprise at least one of vertical slots between adjacent vertical bars and discrete bounded regions.

31. The printer of claim 21, wherein the combination proof sheet and order form includes user readable printed indicia.

32. The printer of claim 21, wherein the scanner mechanism is an optical scanner.

33. The printer of claim 32, wherein the optical scanner is selected from the group consisting of a photo detector array, a paper edge sensor, a media type sensor, and an ink jet pen activation energy sensor.

34. The printer of claim 21, wherein the scanner mechanism is selected from the group consisting of an electrical scanner and a mechanical scanner.

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35. The printer of claim 21, wherein a particular one of the user designation areas is associated with a corresponding one of the digitally stored images.

36. The printer of claim 35, wherein the particular one of the user designation areas is adjacent the graphical representation of the corresponding one of the digitally stored images.

37. The printer of claim 21, wherein a particular one of the user designation areas is associated with a corresponding plurality of the digitally stored images.

39. The printer of claim 23, where the digitally stored images are received from at least one of a flash memory card, a floppy diskette, a direct data link and a wireless data link.

40. The printer of claim 21 wherein the digital print mechanism is further configurable by stored program logic to generate a custom proof sheet and order form having at least one graphically represented image and user designation cropping areas along adjacent side edges of the image, the user designation cropping areas markable by the user to graphically indicate two-dimensional cropping positions for the image.

41. The printer of claim 21, comprising:  
a memory configured to store the digitally stored images.

43. A printer for enabling a user to select and print a plurality of digitally stored images accessible by the printer, the printer comprising:  
a digital print mechanism capable of generating graphical representations of selected ones of the plurality of digitally stored images and a plurality of user designation areas on a print medium;  
a scanner mechanism capable of detecting at least one user designation area on the print medium after it has been completed by a user;  
program logic configured to cause the digital print mechanism to generate a

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combination proof sheet and order form that incorporates at least one of the plurality of images and the plurality of user designation areas;

program logic configured to cause the scanner mechanism to scan the combination proof sheet and order form after at least one of the plurality of user designation areas has been completed by a user and the combination proof sheet and order form has been inserted into the scanner mechanism;

program logic configured to interpret one or more of the user designation areas completed by the user and detected by the scanner mechanism; and

program logic configured to cause the digital print mechanism to automatically generate at least one final print sheet having a graphical representation of at least one of the digitally stored images in response to the detection and interpretation of, and in accordance with, the user designation areas completed by the user.

44. The printer of claim 43, comprising:

a data transfer interface configurable to receive the plurality of digitally stored images.

45. A system for enabling a user to select and print a plurality of digitally stored images, the system comprising:

a digital printer capable of generating graphical representations of selected ones of the plurality of images and a plurality of user designation areas on a print medium;

a scanner capable of detecting at least one user designation area on the print medium after it has been completed by a user;

program logic configured to cause the digital printer to generate a combination proof sheet and order form that incorporates at least one of the plurality of images and the plurality of user designation areas;

program logic configured to cause the scanner to scan the combination proof sheet and order form after at least one of the plurality of user designation areas has been completed by a user and the combination proof sheet and order form has been inserted into the scanner;

program logic configured to interpret one or more of the user designation areas

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completed by the user and detected by the scanner; and

program logic configured to cause the digital printer to generate at least one final print sheet having a graphical representation of at least one of the digitally stored images in accordance with the user designation areas completed by the user.

46. A system for enabling a user to select and print a plurality of digitally stored images, comprising:

a digital printer configurable by stored program logic to generate a combination proof sheet and order form having graphical representations of selected ones of the plurality of images and a plurality of user designation areas;

a scanner coupled to the printer and configurable by stored program logic to detect and interpret at least one user-completed one of the user designation areas after the form has been inserted into the scanner; and

program logic configured to cause the digital printer to generate at least one final print sheet having a graphical representation of at least one of the digitally stored images in accordance with the at least one detected and interpreted user-completed one of the user designation areas.

47. A method for selecting and printing digitally stored images available to a digital printer, comprising:

generating with the digital printer a combination proof sheet and order form having a graphical representation of at least one of the images and a plurality of user designation areas;

scanning with the digital printer the combination proof sheet and order form after a user has completed at least one of the user designation areas thereon;

detecting and interpreting the completed user designation areas with the digital printer; and

automatically printing with the digital printer, responsive to the detecting and interpreting, at least one final print of at least one of the digitally stored images in accordance with the completed user designation areas.

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48. The method of claim 47, comprising:  
automatically detecting a re-insertion into the printer of the user-completed combination proof sheet and order form; and  
initiating the detecting and interpreting in response thereto.
49. The method of claim 47, wherein the plurality of user designation areas includes at least one of an image selection user designation area and an image enhancement user designation area.
50. The method of claim 47, comprising:  
generating an identity marker on the combination proof sheet and order form, the identity marker uniquely associated with at least one of the graphically represented images;  
and  
scanning the identity marker using the printer so as to confirm that the at least one of the graphically represented images is available to the printer, before printing the at least one final print.
51. The method of claim 50, wherein the scanning the identity marker comprises:  
comparing the identity marker to a code associated with the at least one of the graphically represented images.
52. The method of claim 50, comprising:  
preventing the printing if the at least one of the graphically represented images is unavailable to the printer.
53. The method of claim 50, wherein the identity marker comprises a pattern of printed and unprinted locations.

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54. The method of claim 47, wherein the graphical representation of at least one of the images includes an array of thumbnail images.

55. The method of claim 47, wherein the completed user designation areas include locations marked by the user with a marking implement.

56. The method of claim 55, wherein the scanning includes detecting with an optical scanner the locations marked by the user.

57. The method of claim 47, wherein the user designation areas comprise bounded regions markable by a user with a marking implement.

58. The method of claim 47, wherein the user designation areas comprise regions markable by a user by a process selected from the group consisting of punching out holes therein, applying a sticker thereto, and applying a conductive marker thereto.

59. The method of claim 47, comprising:  
generating with the printer at least one custom proof sheet and order form with user designation areas for enhancing a user-selected image.

60. The method of claim 59, wherein the enhancing the user-selected image includes cropping the user-selected image.

61. The method of claim 47, wherein a particular one of the user designation areas is associated with a corresponding one of the digitally stored images.

62. The method of claim 61, wherein the particular one of the user designation areas is generated adjacent the graphical representation of the corresponding one of the digitally stored images.

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63. The method of claim 47, wherein a particular one of the user designation areas is associated with a corresponding plurality of the digitally stored images.

64. The method of claim 47, wherein a particular one of the user designation areas is markable for specifying at least one of an image selection, an image cropping, an image brightness, an image rotation, a color balance, a superimposed picture date, a print size, a print quantity, and a picture storage selection.

65. The method of claim 64, wherein the particular one of the user designation areas is associated with at least one of the digitally stored images.

68. The method of claim 47, comprising:  
storing at least one of the digitally stored images in a memory of the printer.

69. The method of claim 47, comprising:  
storing at least one of the digitally stored images in a computer connected to the printer.

70. The method of claim 47, wherein the detecting and interpreting comprises:  
identifying the at least one of the digitally stored images from the completed user designation areas.

72. A method for selecting and printing digitally stored images, comprising:  
receiving in a digital printer a plurality of the digitally stored images;  
generating with the digital printer a combination proof sheet and order form that incorporates a graphical representation of at least one of the images and a plurality of user designation areas;  
receiving with the digital printer the combination proof sheet and order form after a



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user has completed at least one of the user designation areas thereon and the form has been re-inserted into the digital printer;

utilizing the digital printer to detect and interpret the completed user designation areas on the re-inserted combination proof sheet and order form; and

automatically generating with the digital printer, responsive to the detection and interpretation of the completed user designation areas, at least one final print sheet having a graphical representation of at least one of the digitally stored images in accordance with the completed user designation areas.

74. A method for enhancing a digitally stored image available to a digital printer, comprising:

generating with the digital printer a form having at least one graphical representation of the digitally stored image, and a plurality of user designation areas each associated with at least one of the graphical representations and indicative of a particular image enhancement applicable to the image;

scanning the form with the digital printer after a user has completed at least one of the user designation areas;

detecting and interpreting the completed user designation areas with the digital printer; and

automatically enhancing, responsive to the detecting and interpreting, the digitally stored image with the digital printer in accordance with the completed user designation areas.

75. The method of claim 74, comprising:

automatically detecting a re-insertion into the printer of the user-completed form; and initiating the detecting and interpreting in response thereto.

76. The method of claim 74, comprising:

printing at least one final print of the enhanced digitally stored image.

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77. The method of claim 74, wherein the form has a plurality of graphical representations of the digitally stored image and at least one user designation area associated with each graphical representation, each graphical representation prospectively indicative of the effect of the enhancement.

78. The method of claim 77, wherein the enhancement is selected from the group consisting of a brightness selection and a color balance selection

79. The method of claim 74, wherein the form has a single graphical representation of the digitally stored image and a set of user designation areas associated with the graphical representation, and wherein the completed ones of the set of user designation areas collectively define the enhancement.

80. The method of claim 79, wherein the enhancement is an image cropping selection.

81. The method of claim 80, wherein the set of user designation areas comprises:  
a vertical subset of user designation areas adjacent a vertical edge of the graphical representation; and  
a horizontal subset of user designation areas adjacent a horizontal edge of the graphical representation.

82. The method of claim 81, wherein the image cropping selection is defined by the completion of two user designation areas in the vertical subset denoting a first cropping dimension and two user designation areas in the horizontal subset denoting a second cropping dimension.

83. The method of claim 82, wherein the digitally stored image has a print size, and wherein the first and second cropping dimensions are adjusted to best-fit the image to the print size.

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84. The method of claim 82, wherein the digitally stored image has a print size, and wherein the print size is enlarged based on the first and second cropping dimensions.

130. The printer of claim 21, wherein the program logic configured to cause the digital print mechanism to generate at least one final print sheet is configured to cause the digital print mechanism to automatically generate the at least one final print sheet in response to the scanner mechanism detecting and interpreting the at least one user-completed one of the user designation areas.

131. The system of claim 45, wherein the program logic configured to cause the digital printer to generate at least one final print sheet is further configured to cause the digital printer to automatically generate the at least one final print sheet in response to the interpretation of the user designation areas completed by the user and detected by the scanner.